

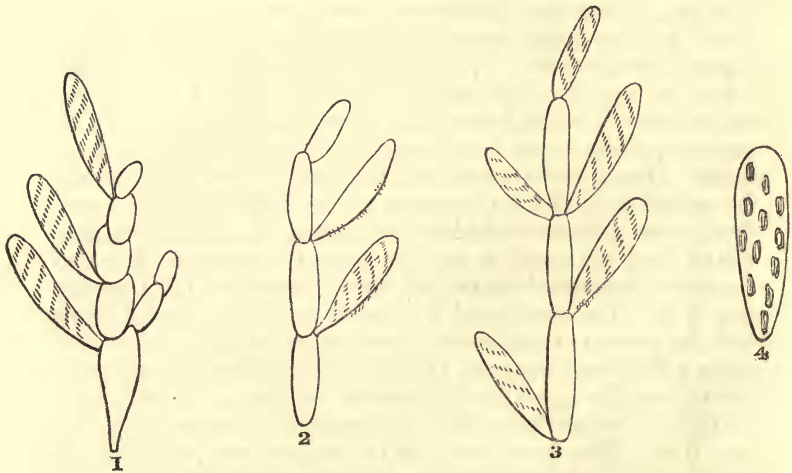
might have been led to conjecture that they were only the common capsules in an immature state, had they not been on the plants that bore granular fruit, and had I not found it stated in Harvey's 'Manual,' that the two kinds of fructification, capsules and granules, are on distinct plants. It is fair to state however that I have observed two granules, and only two, in one of the ramuli of a plant with the large dark-coloured capsules, so that it may turn out that where the granules abound the capsules are dwarfed, and that where there are scarcely any granules in the branches and ramuli, there the capsules swell and are perfected.

I must now conclude my lengthy note. I am glad of anything that attracts attention to this beautiful little *Polysiphonia*.

Rockvale, Saltcoats, June 1844.

XXI.—*Note on the Fructification of Cutleria*. By G. DICKIE, M.D., Lecturer on Botany in the University and King's College of Aberdeen*.

THE results of observations which have already been communicated to the Society on the fructification of the Algæ found in this vicinity, led to an examination of other genera not growing here, but of which I possess dried specimens; and at present reference is specially made to *Cutleria multifida*, Grev. In Harvey's



'Manual,' Dr. Greville's account of the fructification is quoted, viz. "minute tufts of capsules scattered on both sides of the frond; the capsules pedicellate, containing several distinct granules." I

* Read before the Botanical Society of Edinburgh, April 11th, 1844.

have in vain searched for such a structure as is represented in the 'Algæ Britannicæ'; from a careful examination it appears that the fructification of this species is essentially the same as that which has been called acrospermal. It was remarked in a former communication that *Asperococcus* presents the basisperms and their accompanying simple filaments completely exposed; so of *Cutleria* it may be probably legitimate to say, that its fructification represents the acrospermal arrangement of a *Fucus* also placed on the surface, without any inflexion of the frond to form conceptacles. The accompanying figures represent the structure of the fruit in the genus alluded to. In this genus the asci and sporidia are exceedingly delicate and transparent: figs. 1, 2, 3 represent both; fig. 4, one of the latter separated.

XXII.—*On Microscopic Life in the Ocean at the South Pole, and at considerable depths.* By Prof. EHRENBURG*.

THE following is the substance of a paper laid by Prof. Ehrenberg, May 23rd, 1844, before the Berlin Academy, and containing some of the results derived from his recent investigations upon materials furnished from the South Polar expedition of Captain Ross and the voyages of Messrs. Darwin and Schayer; their object being to determine the relation of minute organic life in the ocean, and at the greatest depths hitherto accessible.

Last year the author submitted to the Academy a survey of the geographical distribution of such organisms over the entire crust of the earth; but the field of these inquiries being one of such vast extent and importance, it became evident to him, that to arrive at any positive general results, it was necessary to examine the subject under a more special point of view, and under this conviction, two different courses of investigation suggested themselves as best adapted to fulfill that purpose; viz. first, to ascertain both the constant and periodical proportion which minute organisms bear to the surface of the ocean in different latitudes; and secondly, to examine submarine soil or sea-bottom raised from the greatest possible depths. It is an easy matter, generally, to collect materials of this kind; but before applying to them the test of philosophic criticism and research, the author feels that it is essentially requisite to retrace the contributions of other writers upon the same subject; premising, however, that their value will always be enhanced in so far as the materials collected have been obtained with due care and reference to their several localities.

* From the Proceedings of the Berlin Academy for May, and communicated by the Author.